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LNF Workgroup Report

DRAFT
Level of Need Funded Cost Model

This is the second of two reports by the LNF Workgroup. Part 1, which was submitted in May 1999, summarizes the costs of a mainstream package of health care services for the Indian population in total. Part 2 summarizes cost differences within the Indian health system and proposes a strategy for allocating resources using LNF results.

Part 2:
Summary for IHS Areas

OCTOBER 1999

SUMMARY

Part 2: LNF Cost Model for IHS Areas and Proposed Resource Allocation Strategy

Introduction

This is the second report by the Level of Need Funded (LNF) Workgroup. Part 1, which was submitted in May 1999, summarizes the costs of a mainstream package of health care services for the Indian population in total. This report describes adaptations to the actuarial approach to apply it to the 12 IHS Areas (regions) and for smaller geographic units within those regions. Before summarizing Part 2 results, it is important to reiterate those essential principles on which federal health care to Indians is based.

Federally recognized American Indian tribes and Alaska Native villages have a government-to-government relationship with the United States. The provision of health services to American Indians and Alaska Natives grew out of this government-to-government relationship. The U.S. Government exchanged federal services for the land, water, and minerals of the indigenous people who lived here centuries before the United States was formed. The exchange was made through treaties that were negotiated and signed with tribal nations. These treaties remain in effect.

On the basis of these moral and legal responsibilities to the first Americans, the U.S. government appropriates funds for the Indian health care system; a partnership of federal, tribal, and urban Indian operated health care programs. The federal funding that is provided for the Indian health care system is not an entitlement. Unlike entitlement programs, a defined package of health care services is not assured to eligible Indians who need services. The level of services provided by the Indian health care system varies from place-to-place and from time-to-time depending on available funding.

The American Indian and Alaska Native population has long experienced health problems disproportionately compared with other Americans. Their life expectancy is still 5 years less than other Americans. They die at higher rates than other Americans. The lingering Indian health disparities are troublesome. In trying to account for the inequities, health care experts and congressional and tribal leaders are looking at many factors that impact upon Indian health including, but not limited to, inadequate funding of the Indian health system.

Results from Part 1 of the LNF Study

What would it cost to provide an equitable level of health care services to all eligible Indian people? The Workgroup answered this question in Part 1 of the study using actuarial analysis. Actuarial analysis focuses on factors likely to affect cost of providing personal health care benefits, such as the health status of the population (unhealthy populations need more health care), or the prices charged by physicians and hospitals (high cost areas need greater funding).

The following national results are found in our earlier report and are based on average cost of private insurance (including all premiums, co-payments, and deductibles), adjusted for the age, health status, and rural location of the Indian population, net of estimated payments by other insurers (Medicare, Medicaid, and private).

- Mainstream health care services for all 2.4 million American Indians and Alaska Natives would cost $2,980 per person for a total cost of $7.4 billion annually.

- The Indian health system serves 1.34 million Indians living in IHS service delivery areas. A mainstream package for this "user" population would cost $4 billion. Approximately 25 percent of the cost would be expected from other sources such as Medicare, Medicaid, and private insurance.

- The IHS appropriation provides only 59% of net federal funding needed for Indian users. An additional $1.2 billion is needed to raise the LNF to 100 percent for Indian users.

- The cost to expand coverage to 1 million Indians not now served by the I/T/U system is $3 billion. Of this amount, the cost for Indians residing in Urban Indian service areas is $1 billion. Only a small fraction of eligible urban Indians currently receive health services from the I/T/U system. Very little data exist to estimate the third party coverage for Indians who are not I/T/U users.

Purpose of Part 2 of the LNF Study

Part 1 of the LNF study documented the funding gap for Indians compared to mainstream health plans of other Americans. Part 2 of the study focuses on variations *within* the Indian health system.

The services provided by the Indian health care system vary from place-to-place and from time-to-time depending on available funding. Also, Indian health status, capabilities of the I/T/U existing delivery system, and access to and price of health care from external sources varies substantially within Indian country. In Part 2 of the LNF study, researchers adapted the actuarial approach for the 12 IHS Areas (regions) to reflect the differences found within the I/T/U system.

Adaptations to the Cost Model

Adjust for External Health Care Prices

The I/T/Us purchase health care services from outside sources when internal capacity is insufficient, unavailable, or uneconomical. There are substantial variations in both the use of external health care sources and the prices prevailing in the local health care market. Local prices for health care services will obviously affect the average cost per service. Areas with high costs for physician visits and hospital stays will require more money to provide the standard package of benefits.

For each IHS Area, an index of external health care price was calculated using hospital wage data blended with data on physicians' practice costs. This assumes that variation in market rates reflects variation in prices that I/T/Us will actually experience. The LNF Workgroup believes there may be exceptions to pattern reflected in the price index -- isolated I/T/U that are dependent on a sole source for example. For this reason, we appointed a small team of professionals to compare I/T U cost experience with the prevailing price index. The price team determines whether adjustments to the price index are warranted for individual I/T/U.

Adjust for I/T/U Efficiency

The efficiency of individual I/T/Us will affect the average cost per service. Smaller-than-average units are unable to take advantage of "economies of scale." The inherent inefficiency of small-scale health care systems raises the cost of providing each service.

IHS staff developed a formula to adjust for cost differences related to size of service units, as measured by total user count. The formula would allow slightly higher funding levels for Areas with many small service units, and slightly lower funding levels for Areas with larger units. The researchers reviewed the size adjustment factor and found it within the typical range reported in the literature. The LNF Workgroup accepted the efficiency adjustment factor for the cost model, but as applied to individual I/T/U rather than as an Area wide average.

Adjust for Health Status

Population health status affects the predicted volume and intensity of services needed to provide the standard package of benefits. A population in poorer-than-average health will require more care. For example, a population with higher mortality rates and lower life expectancy probably requires more health care services per person.

Estimating health status cost adjustments for IHS Areas is more difficult than for the IHS as a whole because data for small areas is less complete and less statistically reliable than data from national samples. The researchers developed a cost adjustment index based on 3 proxy measures of health status within Indian country.

- Birth Rates – a proxy for a young, fast growing Indian population with higher than average maternal/child costs.
- Death Rates – a proxy for the higher burden of illness among Indians.
- Poverty Rates – a proxy widely acknowledged as correlated with health status and access to health care services.

The Workgroup recommends that the cost adjustments related to the proxy index of health status be limited to 50% of the expected range, e.g., 10% in the proxy index would be applied in the cost model as 5%. The Workgroup found the new health status index credible, but not as technically robust as the original method which used volume and cost measures for specific health problems, e.g., diabetes, heart disease, etc.

Area Results for Cost Model

Upon review of results for Areas, the LNF workgroup recommends that IHS recompute the cost model using FY 1999 data for I/T/Us rather than with Area average data, as was done in part II of the LNF study. Because more recent and more detailed data will be collected for I/T/Us, the Area results presented here are ***provisional and subject to revision***. A new round of data collection for I/T/Us begins in October. I/T/U level results are expected in December 1999.

Provisional costs per user for each IHS Area are shown in the table below. We anticipate that the new results, when revised using more detailed data from I/T/Us, will be similar to provisional results, but the exact values are certain to change.

Provisional Cost Per User

	External Costs	Internal Costs	Total Internal + External	50% of Health Index	Total Cost per User
ABERDEEN	$641	$2,313	$2,954	104%	$3,072
ALASKA	$817	$3,266	$4,083	100%	$4,062
ALBUQUERQUE	$849	$2,099	$2,948	99%	$2,918
BEMIDJI	$1,788	$1,237	$3,025	103%	$3,116
BILLINGS	$849	$2,161	$3,010	102%	$3,071
CALIFORNIA	$2,336	$1,071	$3,407	96%	$3,271
NASHVILLE	$1,770	$1,296	$3,066	98%	$3,005
NAVAJO	$566	$2,289	$2,855	101%	$2,883
OKLAHOMA	$778	$1,986	$2,764	99%	$2,722
PHOENIX	$775	$2,222	$2,996	101%	$3,011
PORTLAND	$1,699	$1,572	$3,271	99%	$3,221
TUCSON	$912	$2,111	$3,023	103%	$3,098

Area Available Funding Results

Findings on alternate coverage data

The Workgroup reviewed Medicare, Medicaid, and private insurance payments for Indians and found anomalies in the data. Medicaid summary data for Indians, in particular, appear inconsistent with other information and with reports from direct survey – the Survey of American Indians and Alaska Natives (SAIAN). The Workgroup expressed concern about the accuracy of race/ethnicity coding in Medicaid data. Perhaps most importantly, the current data do not allow us to distinguish payments for I/T/U users versus payments for other Indians. The Workgroup concluded alternate payment data do not appear reliable and do not pass the test of credibility at this time. The Workgroup strongly believes that more study, especially the direct matching of the Health Care Financing Agency (HCFA) recipient records for Medicare/Medicaid with IHS user records, is needed before using these data in the LNF calculation.

Interim use of data from SAIAN

In the interim until such time as reliable data are available, the workgroup recommends using $730/user as the estimate of payments by other sources for I/T/U users. This estimate is extrapolated from the SAIAN findings and adjusted for annual medical cost inflation. Note that $730 corresponds to total payments to all providers on behalf of I/T/U users, not just collections by I/T/U programs.

The LNF Calculation

The cost model predicts the amount of money needed to assure a mainstream package of health benefits to Indian people. This model accounts both for significant differences between the Indian population and other Americans and for important differences found within the Indian health system. LNF is the ratio of appropriated IHS funds to needed funds as estimated by the cost model. The LNF ratio is a measure of the adequacy of federal funding to the Indian health system. The Workgroup has chosen to present two LNF ratios:

- funding adequacy considering the **full cost** of benefits (as if mainstream benefits were an entitlement for which the federal government was solely responsible), and

- funding adequacy considering the **net cost** after subtracting payments by other sources for I/T/U users.

The ***provisional*** Area LNF ratios for the ***full cost*** and ***net cost*** of benefits are shown in tables on page 7.

FULL COST LNF Results by Area (no alternate coverage considered)			
	Full Cost per User	Appropriation per User	Provisional LNF %
ABERDEEN	$3,072	$1,523	50%
ALASKA	$4,062	$2,524	62%
ALBUQUERQUE	$2,918	$1,194	41%
BEMIDJI	$3,116	$1,126	36%
BILLINGS	$3,071	$1,600	52%
CALIFORNIA	$3,271	$1,383	42%
NASHVILLE	$3,005	$1,694	56%
NAVAJO	$2,883	$1,058	37%
OKLAHOMA	$2,722	$935	34%
PHOENIX	$3,011	$1,309	43%
PORTLAND	$3,221	$1,586	49%
TUCSON	$3,098	$1,397	45%

NET COST LNF Results by Area (interim estimate of alternate coverage included)					
	Full Cost per User	Interim Other Coverage	Net Cost per User	Appropriation per User	Provisional LNF %
ABERDEEN	$3,072	-$730	$2,342	$1,523	65%
ALASKA	$4,062	-$1,005	$3,057	$2,524	83%
ALBUQUERQUE	$2,918	-$730	$2,188	$1,194	55%
BEMIDJI	$3,116	-$730	$2,386	$1,126	47%
BILLINGS	$3,071	-$730	$2,341	$1,600	68%
CALIFORNIA	$3,271	-$730	$2,541	$1,383	54%
NASHVILLE	$3,005	-$730	$2,275	$1,694	74%
NAVAJO	$2,883	-$730	$2,153	$1,058	49%
OKLAHOMA	$2,722	-$730	$1,992	$935	47%
PHOENIX	$3,011	-$730	$2,281	$1,309	57%
PORTLAND	$3,221	-$730	$2,491	$1,586	64%
TUCSON	$3,098	-$730	$2,368	$1,397	59%

Recommended Resource Allocation Strategy

The Workgroup has reviewed the findings from the LNF study. We believe the LNF cost model, as adapted in Part 2 of the study, is a reasonable guide for distribution of resources among IHS Areas and, ultimately, to I/T/Us. Therefore, the Workgroup makes the following recommendations:

- The IHS should consult with tribes and Indian health leaders about resource allocation using the LNF cost model and results. The Workgroup's summary report and resource allocation strategy recommendations should be distributed immediately for comment.

- The Workgroup does **NOT** propose reallocating existing IHS funding among IHS Areas or I/T/Us. Reallocation would not close the funding gap with other Americans and would disrupt already under-funded health programs.

- After obtaining tribal comment on an LNF allocation policy, the IHS should implement the LNF cost model for allocating program expansion funding (e.g., budget increases appropriated to expand health services for Indians). In any fiscal year in which new program expansion funding is not appropriated, the IHS should consult with tribes and Indian health leaders on whether other budget increases (i.e., funding to maintain current services) should be allocated using the LNF allocation policy.

- The LNF cost model should be applied at the I/T/U level to determine eligibility for program expansion funding. The Workgroup believes that using more detailed I/T/U data, rather than Area average data, will result in more accurate resource allocations. The Workgroup acknowledges that small area data becomes statistically less reliable, but we believe the tradeoff is worthwhile because I/T/U funding within Areas is not equal.

- I/T/Us below the IHS average would be eligible for allocations of program expansion funding. For instance, if the IHS average LNF were 60%, then I/T/Us funded at less than 60% would receive allocations in that year. If the amount available were insufficient to raise all I/T/Us to the average, each below average I/T/U would receive an amount proportionate to its deficiency up to the average. For example, if available new funds were 30% of that needed to raise all I/T/Us to average, each below average I/T/U would receive 30% of its deficiency. This raises the least funded I/T/Us toward the average with the greatest speed.

- The IHS should recalculate the average LNF ratio annually. With substantial funding infusions, the average LNF% will rise to include ever expanding groups of I/T/Us.

Other Issues

Earlier in this report, we stated that alternate health coverage (Medicare, Medicaid, and private insurance) was problematic in the LNF study. Indian leaders have long acknowledged this as one of the more difficult issues to resolve, both philosophically and empirically. We stated our philosophical concern in our May 1999, report.

> "… concern about offsetting third party resources is founded on the unique federal obligation to Indians. Based on the special federal relationship to tribal governments, Indian leaders want Indian health care to be promoted from its existing discretionary status to entitlement. They hold that 100 percent of the necessary federal funding for Indian health care should flow through the IHS appropriation without offset of third party resources."

We acknowledge the practical need to identify other sources of Indian health care coverage and payment in the current political climate. Unfortunately, the empirical difficulties in obtaining accurate and reliable data still remain. We are concerned about the accuracy of race/ethnicity coding in HCFA data and that Medicare and Medicaid payments for I/T/U users cannot be distinguished from payments for other Indians. These problems can lead to substantial bias and inaccuracy in estimates of payments made on behalf of I/T/U users.

Therefore, we strongly encourage the IHS to collaborate with HCFA in a study to match I/T/U user records with Medicare and Medicaid recipient records to resolve these uncertainties. The workgroup acknowledges the difficulties in gaining approval to study data linked to individuals, but we believe this is the only way to reliably identify Medicare and Medicaid payments for I/T/U users.